

REMARKS/ARGUMENTS

Applicants respectfully request reconsideration of this application. Claims 1-8 and 21-28 remain in the application. Of these, claims 1 and 3-8 stand rejected, claim 2 stands withdrawn, and claims 21-28 are newly presented.

Claims 9-20 have been canceled, without prejudice, as a result of the Examiner's restriction requirement.

1. Oath/Declaration

The Examiner indicates the Inventor's Declaration is defective as a result of typographical errors being found therein.

Applicants have reviewed their Declaration and can find no such typographical errors. Therefore, no correction is being made. A copy of the Inventor's Declaration is attached hereto as Exhibit A.

2. Rejection of Claims 1, 3 and 4 Under 35 USC 102(b)

Claims 1, 3 and 4 stand rejected under 35 USC 102(b) as being anticipated by Goenka et al. (US Pat. No. 6,248,247; hereinafter "Goenka").

The Examiner seems to downplay the product-by-process limitations of applicants' claim 1. Specifically, the Examiner cites MPEP §2113 and §2173.05(p) for the proposition that, "A process limitation cannot serve to patentably distinguish the product over the prior art, in the case that the product is the same, or obvious over, the prior art." See Examiner's Office Action. However, MPEP §2113 actually states:

The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art,

especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. See, e.g., *In re Garner*, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1979) (holding "interbonded by interfusion" to limit structure of the claimed composite and noting that terms such as "welded," "intermixed," "ground in place," "press fitted," and "etched" are capable of construction as structural limitations.).

In applicants' claim 1, a sacrificial material is thermally decomposed to leave a "crossover circuit trace" crossing over "one or more circuit components". Unlike Goenka's sacrificial material, part of which is ***etched*** away, and part of which remains to provide supporting "pedestals 16" for an upper circuit trace, applicants' sacrificial material is ***thermally decomposed***. In this manner, applicants can precisely define the cross-section of an air bridge, and can avoid a random process that produces "hourglass" pedestals 16 of somewhat unknown dimensions.

Applicants' claim 1 is believed to be allowable for at least the above reason. Applicants' claims 3 and 4 are believed to be allowable at least for the reason that they depend from claim 1.

If applicants' claim 1 is allowed, applicants request the reinstatement and allowance of claim 2 (which stands withdrawn as being drawn to a non-examined species).

3. Rejection of Claims 5-8 Under 35 USC 103(a)

Claims 5-8 stand rejected under 35 USC 103(a) as being unpatentable over Goenka, as applied to claims 1, 3, and 4 above, in view of Middlehurst et. al. (US Pat. No. 6,604,967; hereinafter "Middlehurst") and Leigh et. al. (US Pat. No. 5,986,893; hereinafter "Leigh").

Applicant believes claims 5-8 are allowable at least for the reason that they depend from an allowable claim 1, and because Middlehurst and Leigh fail to disclose the limitations of parent claim 1 (see previous argument, *supra*).


4. New Claims 21-27

Claims 21 – 27 are newly presented. Support for claim 21 is found, at least, in FIGS. 2 and 3. Applicants' claim 21 recites an additional novelty over Goenka. That is, the novelty that the "crossover circuit trace" is "directly supported by the substrate on opposite sides of the sacrificial material". In Goenka, the crossover circuit trace is fully supported by the remaining "pedestals" of sacrificial material. Claim 21 is therefore believed to be additionally allowable over Goenka. Claims 22-28 are believed to be allowable at least for the reason that they depend from claim 21.

5. Conclusion

Given the above Amendment and Remarks, applicants respectfully request the issuance of a Notice of Allowance.

Respectfully submitted,
DAHL & OSTERLOTH, L.L.P.

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**DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION**ATTORNEY DOCKET NO. 10020307-1

As a below named inventor, I hereby declare that:

My residence/post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHODS FOR PRODUCING AIR BRIDGES

the specification of which is attached hereto unless the following box is checked:

() was filed on _____ as US Application Serial No. or PCT International Application Number _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

Foreign Application(s) and/or Claim of Foreign Priority

I hereby claim foreign priority benefits under Title 35, United States Code Section 119 of any foreign application(s) for patent or inventor(s) certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

COUNTRY	APPLICATION NUMBER	DATE FILED	PRIORITY CLAIMED UNDER 35 U.S.C. 119
N/A			YES: _____ NO: _____
			YES: _____ NO: _____

Provisional Application

I hereby claim the benefit under Title 35, United States Code Section 119(e) of any United States provisional application(s) listed below:

APPLICATION SERIAL NUMBER	FILING DATE
N/A	

U. S. Priority Claim

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NUMBER	FILING DATE	STATUS (patented/pending/abandoned)
N/A		

POWER OF ATTORNEY:

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Customer Number **022878**Place Customer
Number Bar Code
Label here

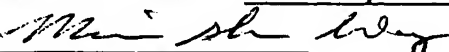
Send Correspondence to:
AGILENT TECHNOLOGIES, INC.
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or

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Date

**DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION (continued)**

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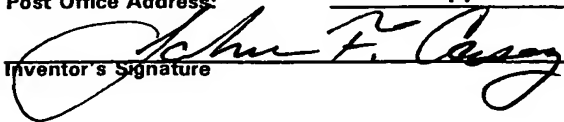
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Date

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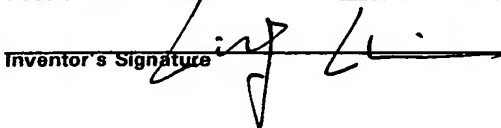
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Post Office Address: _____

Inventor's Signature _____

Date _____

Full Name of # 6 joint inventor: _____

Citizenship: _____

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Inventor's Signature _____

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Full Name of # 7 joint inventor: _____

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Date _____